

OCTOBER 2021

PHASE IB CULTURAL RESOURCES RECONNAISSANCE SURVEY OF A
PROPOSED FIVE LOT RESIDENTIAL SUBDIVISION ALONG ROXBURY ROAD
IN EAST LYME, CONNECTICUT

PREPARED FOR:

ROXBURY ROAD, LLC
282 FRANKLIN STREET
NORWICH, CONNECTICUT 06360

PREPARED BY



830 BERLIN TURNPIKE
BERLIN, CONNECTICUT 06037

ABSTRACT

This report presents the results of a Phase IB cultural reconnaissance survey of a proposed five lot residential subdivision along Roxbury Road in East Lyme, Connecticut. Heritage Consultants, LLC completed the survey in October of 2021. The approximately 8.61 acre parcel of land is located to the south of Roxbury Road and to the west of Whiting Farm Lane. During the Phase IB survey, a total of 39 of 60 (65 percent) planned shovel tests were excavated across the development area. The 21 planned shovel tests that were not excavated fell within an existing gravel road and in areas previously disturbed by construction. Despite the field effort, no cultural material or evidence of cultural features was identified during the Phase IB reconnaissance survey. It was determined that no impacts to significant cultural resources are anticipated by construction of the proposed residential subdivision. No additional archaeological examination of the development area is recommended prior to construction.

TABLE OF CONTENTS

| | |
|---|-----------|
| CHAPTER I: INTRODUCTION | 1 |
| Project Description and Methods Overview | 1 |
| Project Results and Management Recommendations Overview..... | 1 |
| Project Personnel | 2 |
| CHAPTER II: NATURAL SETTING | 3 |
| Introduction..... | 3 |
| Ecoregions of Connecticut..... | 3 |
| Southeast Hills Ecoregion | 3 |
| Hydrology in the Vicinity of the Project Area | 3 |
| Soils Comprising the Project Area | 4 |
| Charlton-Chatfield Soils | 4 |
| Summary..... | 5 |
| CHAPTER III: PREHISTORIC SETTING | 6 |
| Introduction..... | 6 |
| Paleo-Indian Period (12,000 to 10,000 Before Present [B.P.]..... | 6 |
| Archaic Period (10,000 to 2,700 B.P.)..... | 7 |
| Early Archaic Period (10,000 to 8,000 B.P.) | 7 |
| Middle Archaic Period (8,000 to 6,000 B.P.)..... | 7 |
| Late Archaic Period (6,000 to 3,700 B.P.) | 8 |
| Terminal Archaic Period (3,700 to 2,700 B.P.)..... | 8 |
| Woodland Period (2,700 to 350 B.P.)..... | 9 |
| Early Woodland Period (ca., 2,700 to 2,000 B.P.)..... | 9 |
| Middle Woodland Period (2,000 to 1,200 B.P.)..... | 10 |
| Late Woodland Period (ca., 1,200 to 350 B.P.)..... | 10 |
| Summary of Connecticut Prehistory | 11 |
| CHAPTER IV: HISTORICAL OVERVIEW | 12 |
| Introduction..... | 12 |
| Native American History..... | 12 |
| History of East Lyme | 13 |
| History of the Project Area | 14 |
| Conclusions..... | 14 |
| CHAPTER V: PREVIOUS INVESTIGATIONS | 16 |
| Introduction..... | 16 |
| Previously Recorded Archaeological Sites, National/State Register of Historic Places Properties/Districts in the Vicinity of the Facility..... | 16 |
| Site 45-18 | 16 |
| Site 45-19 | 16 |
| Thomas Avery House | 16 |
| Summary and Interpretations | 18 |

| | |
|---|-----------|
| CHAPTER VI: METHODS | 19 |
| Introduction..... | 19 |
| Research Design | 19 |
| Field Methodology | 19 |
| Curation..... | 19 |
| CHAPTER VII: RESULTS OF THE INVESTIGATION & MANAGEMENT RECOMMENDATIONS | 20 |
| Introduction..... | 20 |
| Results of the Investigation and Management Recommendations | 20 |
| BIBLIOGRAPHY | 22 |

LIST OF FIGURES

- Figure 1. Excerpt from a 1996 USGS 7.5' series topographic map showing the location of the proposed project area.
- Figure 2. Project plans for five lot residential subdivision along Roxbury Road in East Lyme, Connecticut.
- Figure 3. Excerpt from an 1854 map showing the location of the proposed project area.
- Figure 4. Excerpt from an 1868 map showing the location of the proposed project area.
- Figure 5. Excerpt from a 1934 aerial image showing the location of the proposed project area.
- Figure 6. Excerpt from a 1951 aerial image showing the location of the proposed project area.
- Figure 7. Excerpt from a 2019 aerial image showing the location of the proposed project area.
- Figure 8. Digital map showing the location of archaeological sites within 1.6 km (1 mi) of the project area.
- Figure 9. Digital map showing the location of National/State Register of Historic Places properties located within 1.6 km (1 mi) of the project area.
- Figure 10. Plan view map of project area showing locations of shovel tests excavated in the proposed five lot residential subdivision along Roxbury Road in East Lyme, Connecticut.

LIST OF PHOTOS

- Photo 1. Overview photo in Lot 1. Photo taken facing west from the southeast corner of the proposed house and garage footprint.
- Photo 2. Overview photo in Lot 1. Photo taken facing north from the southern end of the proposed septic tank footprint.
- Photo 3. Overview photo in Lot 2. Photo taken facing south from the northern end of the proposed septic tank footprint.
- Photo 4. Overview photo in Lot 2. Photo taken facing east from the northern end of the proposed driveway.
- Photo 5. Overview photo in Lot 3. Photo taken facing south from the northeastern end of the proposed driveway.
- Photo 6. Overview photo in Lot 3. Photo taken facing south from the northeastern end of the proposed driveway.
- Photo 7. Overview photo in Lot 3. Photo taken facing west from the northern end of the proposed septic tank footprint.
- Photo 8. Overview photo in Lot 4. Photo taken facing northwest from the southern end of the proposed driveway.
- Photo 9. Overview photo in Lot 4. Photo taken facing north from the southeast corner of the proposed house footprint.
- Photo 10. Overview photo in Lot 5. Photo taken facing south from the northeast corner of the proposed house footprint.
- Photo 11. Overview photo in Lot 5. Photo taken facing northeast from the northeast corner of the proposed septic tank footprint.
- Photo 12. Overview photo from northern end of the proposed common driveway. Photo taken facing south towards Lots 4 and 5.
- Photo 13. Overview photo from center portion of the proposed common driveway and north of Lot 5. Photo taken facing southeast.

CHAPTER I

INTRODUCTION

This report presents the results of a Phase IB cultural resources reconnaissance survey of a proposed five lot residential subdivision (the Project) along Roxbury Road in East Lyme, Connecticut (Figure 1). This survey was requested by Dr. Sarah Sportman, the Connecticut State Archaeologist. Through their engineering contractor CLA Engineers, Inc., (CLA), Roxbury Road, LLC requested that Heritage Consultants, LLC (Heritage) complete the current Phase IB cultural reconnaissance survey. It was completed as part of the planning process for the Project, which will occupy approximately 8.61 acres of wooded land, portions of which have been previously disturbed for a gravel access drive and areas for septic system preparation work. The Project is located to the south of Roxbury Road and to the west of Whiting Farm Lane. Heritage completed this reconnaissance survey in October of 2021. All work associated with this investigation was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

Project Description and Methods Overview

The proposed project plans call for the construction of five single family residences with attached garages and individual underground septic lines and tanks. A 3.6 meter (12 foot) wide bituminous shared common roadway will originate at Roxbury Road and meet with Lots 3, 4, and 5. Lots 1, and 2 will have private 3 meter (10 foot) wide bituminous driveways. Underground electrical, telephone and cable lines also will be installed, as well as a 20 x 20 foot (6 x 6 meter) crushed gravel turnaround in the western portion of Lot 3 (Figure 2). At the time of survey, the project area consisted of cleared and wooded areas with low slopes that ranged in elevation from 35 meters (115 feet) NGVD to 41 meters (135 feet) NGVD.

The current Phase IB cultural resources reconnaissance survey consisted of the completion of the following tasks: 1) a contextual overview of the project region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously completed cultural resources surveys and previously recorded cultural resources in the region encompassing the study area; 3) a review of readily available historical maps and aerial imagery depicting the study area in order to identify potential historical resources and/or areas of past disturbance; and 4) subsurface testing of the Facility area.

Project Results and Management Recommendations Overview

During the current Phase IB cultural resources survey, a total of 39 of 60 (65 percent) planned shovel tests were excavated across the development area. The 21 planned shovel tests that were not excavated fell within the existing gravel road and in areas that were disturbed by the current construction. Despite the field effort, no cultural material or evidence of cultural features was identified during the Phase IB reconnaissance survey. It was determined that no impacts to significant cultural resources are anticipated by construction of the proposed residential subdivision and no additional archaeological examination of the development area is recommended prior to construction.

Project Personnel

Key personnel for this project included David R. George, M.A., R.P.A (Principal Investigator); Antonio Medina, B.A. (Operations Supervisor); Renee Petruzelli, M.A., R.P.A. (Project Archaeologist), Matthew Denno, M.A., (Field Supervisor), Barbara Sternal, M.A., (Historian), and Tevin Jourdain, B.A. (GIS Specialist).

CHAPTER II

NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the Project in East Lyme. Previous archaeological research has documented that a few specific environmental factors can be associated with both prehistoric and historical period site selection. These include general ecological conditions, as well as types of fresh water sources and soils present. The remainder of this section provides a brief overview of the ecology, hydrological resources, and soils present within the project area, access roads, and the larger region in general.

Ecoregions of Connecticut

Throughout the Pleistocene and Holocene Periods, Connecticut has undergone numerous environmental changes. Variations in climate, geology, and physiography have led to the “regionalization” of Connecticut’s modern environment. It is clear, for example, that the northwestern portion of the state has very different natural characteristics than the coastline. Recognizing this fact, Dowhan and Craig (1976), as part of their study of the distribution of rare and endangered species in Connecticut, subdivided the state into various ecoregions. Dowhan and Craig (1976:27) defined an ecoregion as:

“an area characterized by a distinctive pattern of landscapes and regional climate as expressed by the vegetation composition and pattern, and the presence or absence of certain indicator species and species groups. Each ecoregion has a similar interrelationship between landforms, local climate, soil profiles, and plant and animal communities. Furthermore, the pattern of development of plant communities (chronosequences and toposequences) and of soil profile is similar in similar physiographic sites. Ecoregions are thus natural divisions of land, climate, and biota.”

Dowhan and Craig defined nine major ecoregions for the State of Connecticut. They are based on regional diversity in plant and animal indicator species (Dowhan and Craig 1976). Only one of the ecoregions is germane to the current investigation: Southeast Hills ecoregion. A brief summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the project area.

Southeast Hills Ecoregion

The Southeast Hills ecoregion consists of “coastal uplands, lying within 25 miles of Long Island Sound, characterized by low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography” (Dowhan and Craig 1976). Elevations in the Southeast Hills ecoregion generally range from 75.7 to 227.2 m (250 to 750 ft) above sea level (Dowhan and Craig 1976). The bedrock of the region is composed of schists and gneisses deposited during the Paleozoic. Soils in the region have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys and upland areas (Dowhan and Craig 1976).

Hydrology in the Vicinity of the Project Area

The Project area is situated within a region that contains multiple sources of freshwater, including Gorton Pond, Pattagansett River, Havens Pond, Beaver Dam Brook, Dodge Pond, Bride Lake and the Niantic River to the east, as well as numerous unnamed streams, ponds, and wetlands. These freshwater sources may have served as resource extraction areas for Native American and historical populations. Previous archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were

focal points for prehistoric occupations because they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources.

Soils Comprising the Project Area

Soil formation is the direct result of the interaction of a number of variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to a number of diagenic and taphonomic processes. Different classes of artifacts may be preferentially protected or unaffected by these processes, whereas others may deteriorate rapidly. Cyclical wetting and drying, freezing and thawing, and compression can accelerate chemically and mechanically the decay processes for animal bones, shells, lithics, ceramics, and plant remains. Lithic and ceramic artifacts are largely unaffected by soil pH, whereas animal bones and shells decay more quickly in acidic soils such as those present in the project area. In contrast, acidic soils enhance the preservation of charred plant remains.

Charlton-Chatfield soils, which are very deep and well drained, were identified in the project area. These soil types are well correlated with both historical and prehistoric archaeological site locations. Descriptive profiles for each, which were accessed via the National Resources Conservation Service, are presented below.

Charlton-Chatfield Soils

The Charlton series consists of very deep, well drained soils formed in loamy melt-out till. They are nearly level to very steep soils on moraines, hills, and ridges. Slope ranges from 0 to 60 percent. A typical profile associated with Charlton soils is as follows: **Oe**--0 to 4 cm; black (10YR 2/1) moderately decomposed forest plant material; **A**--4 to 10 cm; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; 5 percent gravel; very strongly acid; abrupt smooth boundary. **w1**--10 to 18 cm; brown (7.5YR 4/4) fine sandy loam; weak coarse granular structure; very friable; many fine and medium roots; 5 percent gravel; very strongly acid; clear wavy boundary; **Bw2**--18 to 48 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; 10 percent gravel and cobbles; very strongly acid; clear wavy boundary; **Bw3**--48 to 69 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive; very friable; few medium roots; 15 percent gravel and cobbles; very strongly acid; abrupt wavy boundary; and **C**--69 to 165 cm; grayish brown (2.5Y 5/2) gravelly fine sandy loam with thin lenses of loamy sand; massive; friable, some lenses firm; few medium roots; 25 percent gravel and cobbles; strongly acid.

The Chatfield series consists of well drained soils formed in loamy melt-out till. They are moderately deep to bedrock. They are nearly level to very steep soils on bedrock-controlled hills and ridges. Slope ranges from 0 to 70 percent. A typical profile associated with Chatfield soils is as follows: **Oi**--0 to 3 cm, slightly decomposed leaf, needle, and twig litter; extremely acid, pH 4.2; **A**--3 to 5 cm, very dark gray (10YR 3/1) fine sandy loam, gray (10YR 5/1), dry; weak fine subangular blocky structure; friable; many fine and medium roots throughout; 5 percent mixed gravel and cobbles; very strongly acid, pH 4.5; abrupt smooth boundary; **Bw1**--5 to 33 cm, strong brown (7.5YR 5/6) gravelly fine sandy loam; weak fine subangular blocky structure; friable; common fine roots throughout and common medium roots throughout; 15 percent mixed gravel and cobbles; very strongly acid, pH 4.5; abrupt wavy boundary; **Bw2**--33 to 76 cm, strong brown (7.5YR 5/6) gravelly fine sandy loam; moderate medium subangular blocky structure; friable; few fine roots throughout; 20 percent mixed rock fragments; very strongly acid, pH 4.5; abrupt irregular boundary; and **2R**--76 cm; fractured slightly-weathered schist bedrock.

Summary

The natural setting of the region containing the proposed work area is common throughout the Southeast Hills ecoregion. The major river within this ecoregion is the Connecticut River, which has numerous smaller tributaries. Moderate slopes dominate the region, and the soils are silty and sandy loams. In general, the Project region was well suited to Native American occupation throughout the prehistoric era. This portion of Haddam was also used after Colonial settlement for agricultural land, as evidenced by the presence of agricultural fields throughout the region; thus, archaeological deposits dating from the prehistoric and historical eras may be expected near or within the proposed Project area.

CHAPTER III

PREHISTORIC SETTING

Introduction

Prior to the late 1970s and early 1980s, few systematic archaeological surveys of large portions of the state of Connecticut had been undertaken. Rather, the prehistory of the region was studied at the site level. Sites chosen for excavation were highly visible and located in the coastal zone, e.g., shell middens, and Connecticut River Valley. As a result, a skewed interpretation of the prehistory of Connecticut was developed. It was suggested that the upland portions of the state, i.e., the northeastern and northwestern hills ecoregions, were little used and rarely occupied by prehistoric Native Americans, while the coastal zone, i.e., the eastern and western coastal and the southeastern and southwestern hills ecoregions, were the focus of settlements and exploitation in the prehistoric era. This interpretation remained unchallenged until the 1970s and 1980s when several town-wide and regional archaeological studies were completed. These investigations led to the creation of several archaeological phases that subsequently were applied to understand the prehistory of Connecticut. The remainder of this chapter provides an overview of the prehistoric setting of the region encompassing the project area.

Paleo-Indian Period (12,000 to 10,000 Before Present [B.P.])

The earliest inhabitants of the area encompassing the State of Connecticut, who have been referred to as Paleo-Indians, arrived in the area by ca., 12,000 B.P. (Gramly and Funk 1990; Snow 1980). Due to the presence of large Pleistocene mammals at that time and the ubiquity of large fluted projectile points in archaeological deposits of this age, Paleo-Indians often have been described as big-game hunters (Ritchie and Funk 1973; Snow 1980); however, as discussed below, it is more likely that they hunted a broad spectrum of animals.

While there have been numerous surface finds of Paleo-Indian projectile points throughout the State of Connecticut, only two sites, the Templeton Site (6-LF-21) in Washington, Connecticut and the Hidden Creek Site (72-163) in Ledyard, Connecticut, have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is located in Washington, Connecticut and was occupied between 10,490 and 9,890 years ago (Moeller 1980). In addition to a single large and two small fluted points, the Templeton Site produced a stone tool assemblage consisting of graters, drills, core fragments, scrapers, and channel flakes, which indicates that the full range of stone tool production and maintenance took place at the site (Moeller 1980). Moreover, the use of both local and non-local raw materials was documented in the recovered tool assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant stone sources, the use of which likely occurred during movement from region to region.

The only other Paleo-Indian site studied in detail in Connecticut is the Hidden Creek Site (72-163) (Jones 1997). The Hidden Creek Site is situated on the southeastern margin of the Great Cedar Swamp on the Mashantucket Pequot Reservation in Ledyard, Connecticut. While excavation of the Hidden Creek Site produced evidence of Terminal Archaic and Woodland Period components (see below) in the upper soil horizons, the lower levels of the site yielded artifacts dating from the Paleo-Indian era. Recovered Paleo-Indian artifacts included broken bifaces, side-scrapers, a fluted preform, graters, and end-scrapers. Based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden

Creek Site represented a short-term occupation, and that separate stone tool reduction and rejuvenation areas were present.

While archaeological evidence for Paleo-Indian occupation is scarce in Connecticut, it, combined with data from the West Athens Road and King's Road Site in the Hudson drainage and the Davis and Potts Sites in northern New York, supports the hypothesis that there was human occupation of the area not long after ca. 12,000 B.P. (Snow 1980). Further, site types currently known suggest that the Paleo-Indian settlement pattern was characterized by a high degree of mobility, with groups moving from region to region in search of seasonally abundant food resources, as well as for the procurement of high-quality raw materials from which to fashion stone tools.

Archaic Period (10,000 to 2,700 B.P.)

The Archaic Period, which succeeded the Paleo-Indian Period, began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980), and it has been divided into three subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). These periods were devised to describe all non-farming, non-ceramic producing populations in the area. Regional archeologists recently have recognized a final "transitional" Archaic Period, the Terminal Archaic Period (3,400-2,700 B.P.), which was meant to describe those groups that existed just prior to the onset of the Woodland Period and the widespread adoption of ceramics into the toolkit (Snow 1980; McBride 1984; Pfeiffer 1984, 1990; Witthoft 1949, 1953).

Early Archaic Period (10,000 to 8,000 B.P.)

To date, few Early Archaic sites have been identified in southern New England. As a result, researchers such as Fitting (1968) and Ritchie (1969), have suggested a lack of these sites likely is tied to cultural discontinuity between the Early Archaic and preceding Paleo-Indian Period, as well as a population decrease from earlier times. However, with continued identification of Early Archaic sites in the region, and the recognition of the problems of preservation, it is difficult to maintain the discontinuity hypothesis (Curran and Dincauze 1977; Snow 1980).

Like their Paleo-Indian predecessors, Early Archaic sites tend to be small and produce few artifacts, most of which are not temporally diagnostic. While Early Archaic sites in other portions the United States are represented by projectile points of the Kirk series (Ritchie and Funk 1973) and by Kanawha types (Coe 1964), sites of this age in southern New England are identified recognized on the basis of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by the presence of their characteristic bifurcated base, and they generally are made from high quality raw materials. Moreover, finds of these projectile points have rarely been in stratified contexts. Rather, they occur commonly either as surface expressions or intermixed with artifacts representative of later periods. Early Archaic occupations, such as the Dill Farm Site and Sites 6LF64 and 6LF70 in Litchfield County, an area represented by camps that were relocated periodically to take advantage of seasonally available resources (McBride 1984; Pfeiffer 1986). In this sense, a foraging type of settlement pattern was employed during the Early Archaic Period.

Middle Archaic Period (8,000 to 6,000 B.P.)

By the onset of the Middle Archaic Period, essentially modern deciduous forests had developed in the region (Davis 1969). It is at this time that increased numbers and types of sites are noted in Connecticut (McBride 1984). The most well-known Middle Archaic site in New England is the Neville Site, which is located in Manchester, New Hampshire and studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. In

fact, Dincauze (1976) obtained several radiocarbon dates from the Middle Archaic component of the Neville Site. The dates, associated with the then-newly named Neville type projectile point, ranged from 7,740 \pm 280 and 7,015 \pm 160 B.P. (Dincauze 1976).

In addition to Neville points, Dincauze (1976) described two other projectile points styles that are attributed to the Middle Archaic Period: Stark and Merrimac projectile points. While no absolute dates were recovered from deposits that yielded Stark points, the Merrimac type dated from 5,910 \pm 180 B.P. Dincauze argued that both the Neville and later Merrimac and Stark occupations were established to take advantage of the excellent fishing that the falls situated adjacent to the site area would have afforded Native American groups. Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of tool types and resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96)

Late Archaic Period (6,000 to 3,700 B.P.)

The Late Archaic Period in southern New England is divided into two major cultural traditions that appear to have coexisted. They include the Laurentian and Narrow-Stemmed Traditions (Funk 1976; McBride 1984; Ritchie 1969a and b). Artifacts assigned to the Laurentian Tradition include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights, and scrapers. The diagnostic projectile point forms of this time period in southern New England include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a; Thompson 1969). In general, the stone tool assemblage of the Laurentian Tradition is characterized by flint, felsite, rhyolite and quartzite, while quartz was largely avoided for stone tool production.

In terms of settlement and subsistence patterns, archaeological evidence in southern New England suggests that Laurentian Tradition populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been studied, sites of this age generally encompass less than 500 m² (5,383 ft²). These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1978, 1984:252). Finally, subsistence strategies of Laurentian Tradition focused on hunting and gathering of wild plants and animals from multiple ecozones.

The second Late Archaic tradition, known as the Narrow-Stemmed Tradition, is unlike the Laurentian Tradition, and it likely represents a different cultural adaptation. The Narrow-Stemmed tradition is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). Other tools found in Narrow-Stemmed Tradition artifact assemblages include choppers, adzes, pestles, antler and bone projectile points, harpoons, awls, and notched atlatl weights. Many of these tools, notably the projectile points and pestles, indicate a subsistence pattern dominated by hunting and fishing, as well the collection of a wide range of plant foods (McBride 1984; Snow 1980:228).

Terminal Archaic Period (3,700 to 2,700 B.P.)

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 BP, is perhaps the most interesting, yet confusing of the Archaic Periods in southern New England prehistory. Originally termed the "Transitional Archaic" by Witthoft (1953) and recognized by the introduction of technological innovations, e.g., broadspear projectile points and soapstone bowls, the Terminal Archaic has long posed problems for regional archeologists. While the Narrow-Stemmed Tradition persisted through the Terminal Archaic

and into the Early Woodland Period, the Terminal Archaic is coeval with what appears to be a different technological adaptation, the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is recognized in southern New England by the presence of a new stone tool industry that was based on the use of high-quality raw materials for stone tool production and a settlement pattern different from the “coeval” Narrow-Stemmed Tradition.

The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. There are several local sequences within the tradition, and they are based on projectile point type chronology. Temporally diagnostic projectile points of these sequences include the Snook Kill, Susquehanna Broadspear, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). The initial portion of the Terminal Archaic Period (ca., 3,700-3,200 BP) is characterized by the presence of Snook Kill and Susquehanna Broadspear projectile points, while the latter Terminal Archaic (3,200-2,700 BP) is distinguished by the use of Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

In addition, it was during the late Terminal Archaic that interior cord marked, grit tempered, thick walled ceramics with conoidal (pointed) bases made their initial appearance in the Native American toolkit. These are the first ceramics in the region, and they are named Vinette I (Ritchie 1969a; Snow 1980:242); this type of ceramic vessel appears with much more frequency during the ensuing Early Woodland Period. In addition, the adoption and widespread use of soapstone bowls, as well as the implementation of subterranean storage, suggests that Terminal Archaic groups were characterized by reduced mobility and longer-term use of established occupation sites (Snow 1980:250).

Finally, while settlement patterns appeared to have changed, Terminal Archaic subsistence patterns were analogous to earlier patterns. The subsistence pattern still was diffuse in nature, and it was scheduled carefully. Typical food remains recovered from sites of this period consist of fragments of white-tailed deer, beaver, turtle, fish and various small mammals. Botanical remains recovered from the site area consisted of *Chenopodium* sp., hickory, butternut and walnut (Pagoulatos 1988:81). Such diversity in food remains suggests at least minimal use of a wide range of microenvironments for subsistence purposes.

Woodland Period (2,700 to 350 B.P.)

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery; however, as mentioned above, early dates associated with pottery now suggest the presence of Vinette I ceramics appeared toward the end of the preceding Terminal Archaic Period (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been divided into three subperiods: Early, Middle, and Late Woodland. The various subperiods are discussed below.

Early Woodland Period (ca., 2,700 to 2,000 B.P.)

The Early Woodland Period of the northeastern United States dates from ca., 2,700 to 2,000 B.P., and it has thought to have been characterized by the advent of farming, the initial use of ceramic vessels, and increasingly complex burial ceremonialism (Griffin 1967; Ritchie 1969a and 1969b; Snow 1980). In the Northeast, the earliest ceramics of the Early Woodland Period are thick walled, cord marked on both the interior and exterior, and possess grit temper.

Careful archaeological investigations of Early Woodland sites in southern New England have resulted in the recovery of narrow stemmed projectile points in association with ceramic sherds and subsistence remains, including specimens of White-tailed deer, soft and hard-shell clams, and oyster shells (Lavin

and Salwen: 1983; McBride 1984:296-297; Pope 1952). McBride (1984) has argued that the combination of the subsistence remains and the recognition of multiple superimposed cultural features at various sites indicates that Early Woodland Period settlement patterns were characterized by multiple re-use of the same sites on a seasonal basis by small co-residential groups.

Middle Woodland Period (2,000 to 1,200 B.P.)

The Middle Woodland Period is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). The latter suggests that regional exchange networks were established, and that they were used to supply local populations with necessary raw materials (McBride 1984; Snow 1980). The Middle Woodland Period is represented archaeologically by narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types that are indicative of the Middle Woodland Period includes Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a:200).

In terms of settlement patterns, the Middle Woodland Period is characterized by the occupation of village sites by large co-residential groups that utilized native plant and animal species for food and raw materials in tool making (George 1997). These sites were the principal place of occupation, and they were positioned close to major river valleys, tidal marshes, estuaries, and the coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains. The use of temporary and task-specific sites to support large village populations indicates that the Middle Woodland Period was characterized by a resource acquisition strategy that can best be termed as logistical collection (McBride 1984:310).

Late Woodland Period (ca. 1,200 to 350 B.P.)

The Late Woodland Period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of corn in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1974; McBride 1984; Snow 1980).

Stone tool assemblages associated with Late Woodland occupations, especially village-sized sites, are functionally variable and they reflect plant and animal resource processing and consumption on a large scale. Finished stone tools recovered from Late Woodland sites include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools. These tools were used in activities ranging from hide preparation to plant processing to the manufacture of canoes, bowls, and utensils, as well as other settlement and subsistence-related items (McBride 1984; Snow 1980). Finally, ceramic assemblages recovered from Late Woodland sites are as variable as the lithic assemblages. Ceramic types identified include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised (Lavin 1980, 1988a,

1988b; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947). These types are more diverse stylistically than their predecessors, with incision, shell stamping, punctation, single point, linear dentate, rocker dentate stamping, and stamp and drag impressions common (Lizee 1994a:216).

Summary of Connecticut Prehistory

The prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence patterns, and land use strategies. Much of the prehistoric era is characterized by local Native American groups who practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland Period that incontrovertible evidence for the use of domesticated species is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project area, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

CHAPTER IV

HISTORICAL OVERVIEW

Introduction

As discussed in Chapter I, the proposed project area is located in the town of East Lyme, which is situated in New London County, Connecticut. East Lyme was incorporated in 1839 and was originally part of Lyme and Waterford, which were formed from parts of the colony of Saybrook. East Lyme consists of the villages of Flanders in the north and Niantic on the shore in the south. While this town began as an agrarian community, it has developed into a resort town with a substantial residential area. This chapter presents an overview history of the town of East Lyme, as well as data more specific to the location of the project area.

Native American History

The area that is now East Lyme was within the territory of the Niantic tribe. The homeland of the Niantics were in southeastern Connecticut around the Niantic River Valley. At the time of contact with the Europeans, the lifestyle of the indigenous peoples of southern New England had been the same for hundreds of years. Native Americans in the area relied on hunting and fishing for sustenance, and cultivated various crops, including maize, beans, sunflowers, and tobacco. They supplemented their diet seasonally by collecting shellfish, fruits, and plants during warmer periods; and gathering nuts, roots, and tubers during colder periods. Additionally, Native Americans came together in large groups to hunt deer in the fall and early winter. In terms of housing, indigenous peoples lived with their immediate or extended families in round wigwams or oval houses. They also resided in longer rectangular dwellings, which housed multiple families. Trade was common among native peoples, and this practice was extended to the European arrivals. However, interactions with Europeans meant exposure to new diseases, including measles, tuberculosis, and cholera. Because Native Americans had no immunity to these afflictions, they died in large numbers in the early seventeenth century. By 1650, it is possible that as much as 90 percent of Native Americans in New England had perished. The diminished population and the fact that Native Americans had an oral tradition rather than a written one mean that there is little recorded information about the natives that lived in southern New England in the seventeenth century and earlier (Lavin 2013).

While it is unclear how Nehantic land came to be part of the Connecticut Colony, sources suggest that the colony considered it part of the territory conquered during the Pequot War in the 1630s. This meant that the colony assumed authority over the land and dictated where Native Americans could live (De Forest 1852). At some point in the seventeenth century the Niantics were given a reservation “stretching from the Niantic River four miles westward and running north from the seacoast as far as the bounds of [Lyme and New London].” Later this was reduced to only 300 acres (121 ha) of land in what is now East Lyme (De Forest 1852:382). In 1734, there were still 30 families living there, suggesting total numbers of approximately 150 people. Despite the small amount of reserved land and the continued pressure from the colonists, the numbers of the Niantics remained nearly steady through 1774, when 104 individuals were found. By 1783, however, there were only 16 families. In the early nineteenth century, several members of the tribe moved to New York to join Native American communities there, and as of 1849 only 10 individuals still lived on the remaining 240 acres (97 ha) (De Forest 1852). The state sold off the remaining land in 1870 and in 1886, the Native American cemetery on the former reservation, which had been held back in an earlier sale, was granted to the owner of the surrounding

land. The human remains that could be found were moved to the Union Cemetery in southern East Lyme (Chendali 1989).

History of East Lyme

English settlers established the colony of Saybrook in 1635 with a fort on the west bank of the Connecticut River. In 1644, Saybrook was joined to the Connecticut Colony (Crofut 1937). While it is unclear exactly what territory was included in Saybrook, it eventually encompassed an area of about 15 miles east to west (flanking the Connecticut River) and about 10 miles inland from the coast. In 1665, the colonists on the east side of the river claimed to number 30 families, which spurred the legislature to create a new town. Originally called East Saybrook, the name was changed to Lyme in 1667. In 1719, the community in the eastern part of Lyme formed the Niantic Society (Crofut 1937; Hurd 1882). By the time of the first census in Connecticut in 1756, Lyme had 2,956 residents. This number grew over the following decades and at the end of the century, Lyme had approximately 4,000 residents (Connecticut 2021a).

As of the early nineteenth century, the town of Lyme was geographically the largest in the state (Pease and Niles 1819). In the area that is now East Lyme, most inhabitants lived in the northern section in a village known as Flanders. The southern portion along the shoreline, known as the village of Niantic, was mostly agricultural land (East Lyme Historical Society 2021). The residents of the East Lyme area were primarily farmers who grew corn and raised cattle, producing butter and cheese. On the shore, fishing boats and several ferries used the multiple harbors in town. Early industrial activity included multiple factories, as well as grain mills and sawmills (Pease and Niles 1819). In 1839, East Lyme separated from Lyme and in 1840, the town had a population of 1,412 residents (Connecticut 2021b). As the century progressed, fishing became much more prosperous and Niantic's harbors were filled with ships bringing in halibut and cod. Related businesses also grew, including shipyards, producers of cord wood, and providers of ice and bait (East Lyme Historical Society 2021). Other types of industry flourished after the New Haven & New London Railroad was built along the coast through the village of Niantic in 1852. Over time, the railroad's extensions and connections made this a key route that continues in existence to the present day (Turner and Jacobus 1989). This improvement in transportation attracted manufacturers to Niantic, and the village became a commercial hub in town. By 1880, decades of fishing had exhausted the supply off the coast of East Lyme, and facilitated by the railroad, the shoreline became a recreational spot (East Lyme Historical Society 2021). Despite East Lyme's industrial activity and budding tourist industry, the number of residents in town increased slowly and by 1890, the population reached 2,048 (Connecticut 2021b).

Throughout the twentieth century, East Lyme transitioned into a shoreline destination. In the early 1900s, the southern village of Niantic experienced an influx of residents and immigrants in particular. As tourists began to frequent the East Lyme shore, businesses sprang up and much of the former farmland became hotels and restaurants (East Lyme Historical Society 2021). By 1940, the village of Niantic was commonly known as a summer resort (Connecticut 1940). Quarrying also became a prominent industry during this time and Niantic yielded golden pink granite, which was used throughout the country until mid-century (East Lyme Historical Society 2021). The population of East Lyme slowly rose from 1,836 residents in 1900 to 3,870 in 1950 (Connecticut 2021c). During the 1950s and 1960s, the town's population increased dramatically due to the suburbanization trend facilitated by the rise of the automobile. The construction of highways also had a large effect on the town as Interstate 95 runs through Niantic. By 1970, the population had reached 11,399 residents, having almost tripled over the previous two decades (Connecticut 2021c, 2021d). At that time, maritime leisure activities were a much greater contributor to the local economy. In addition to machine companies, electronic manufacturers,

warehouses, and textile bleaching, East Lyme's principal industries included boat marinas, sport fishing, and resort-related businesses (Connecticut 1970). In the following decades, the popularity of the East Lyme shore drove up the price of real estate in Niantic, which caused more residential development in the northern village of Flanders (East Lyme Historical Society 2021). As of 2021, East Lyme had 18,724 residents and two of the largest employment sectors were retail and hospitality (AdvanceCT and CTData Collaborative 2021). Tourism was one of the town's main industries, which was concentrated on recreational activities along the shore (Connecticut 2020). In terms of future growth, while East Lyme is mostly a residential suburb, town officials cultivate and promote its reputation as shoreline resort (East Lyme 2020).

History of the Project Area

In the nineteenth century, the proposed project area was located in the village of Niantic in southern East Lyme and adjacent to what is now Roxbury Road. An 1854 map indicated that the project area was in a moderately populated rural region (Figure 3; 1854). The closest homestead was approximately 250 m (820 ft) away on the other side of the street to the west of the project area. A minor waterway, possibly what is now known as Red Brook, ran northwest to southeast between the property and the project area. The house was owned by R. Rogers, likely Rowland Rogers [Jr.] who at that time was a 51-year-old farmer (United States Census Bureau 1860). This was also possibly the same Roland Rogers, Jr. who was one of East Lyme's first constables after the town's incorporation in 1839 (Hurd 1882). Rogers owned another house on the same side of the street as the project area but further to the west on Roxbury Road. Other neighboring homesteads were further afield and a community with a multitude of houses and other buildings was present along the shoreline, a considerable distance away. The project area itself consisted of wooded or cleared agricultural land. As of 1868, the region surrounding the project area had not undergone significant changes (Figure 4; 1868). The landscape continued to be mostly rural and not heavily populated. Three new houses were present to the east on Roxbury Road and the nearest dwelling to the west was still owned by R. Rogers, though Red Brook no longer intersected Roxbury Road. The project area was unchanged and not in close proximity to any houses.

During the twentieth and early twenty-first centuries, the location of the proposed project area transitioned from an agricultural zone to a residential neighborhood. In 1934, the project area was in a sparsely populated rural section of town (Figure 5; 1934). The project area consisted of wooded land traversed by unpaved roads. To the east and southwest along Roxbury Road were farms with cleared fields and several buildings. There were also two small bodies of water to the east of the project area. As of 1951, the environs of the project area were still a rural landscape (Figure 6; 1951). In the forested sections, including the project area, significant tree regrowth was present and the unpaved roads were either no longer in use or not visible. The layout of the farms and the cleared fields were generally unchanged, but the bodies of water to the east had disappeared. By 2019, the presence of numerous houses indicated that the proposed project area was now in a residential portion of town (Figure 7; 2019). The former cleared agricultural fields were now subdivided into housing lots and there were no farms in the vicinity. These lots were located across the street from the project area and to the east and west along Roxbury Road, as well as on Whiting Farm Lane to the southeast. One small body of water was again visible to the east of the project area. To the northwest was the East Lyme Town Transfer Station and much of the surroundings, including the project area, was forested land.

Conclusions

The historical research indicates that the proposed project area is unlikely to be associated with any significant historical resources. Based on the location of the project area and its proximity to agricultural fields, there is the possibility of encountering remains of historical outbuildings, stonewalls, or other

evidence of historic farming. The documentary record does not indicate that the project area is on the location of any known historical residences. Additionally, though R. Rogers may have been one of East Lyme's first town officials, his property was at a fair distance from the project area and there is no clear indication that he had a connection to the project area. Other persons associated with the surrounding agricultural lands were not of local, state, or national importance. Any archaeological deposits associated with the project area are not likely to be considered historically significant.

Chapter V

PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous archaeological research completed within the vicinity of the proposed Project in East Lyme, Connecticut. This discussion provides the comparative data necessary for assessing the results of the current Phase IB Survey and it ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the Facility are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites, National/State Register of Historic Places properties/districts, and inventoried historical standing structures situated in the project region (Figures 8 and 9). The discussions presented below are based on information currently on file at the CT-SHPO in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage were examined during the course of this investigation. Both the quantity and quality of the information contained in the original cultural resources survey reports and State of Connecticut archaeological site forms are reflected below.

Previously Recorded Archaeological Sites, National/State Register of Historic Places Properties/Districts in the Vicinity of the Facility

A review of files maintained by the CT-SHPO and Heritage revealed that there are two previously identified archaeological sites (Site 45-18 and 45-19) located within 1.6 km (1 mi) of the proposed project area (Figure 8). This review also revealed a single previously identified National Register of Historic Places properties situated within 1.6 km (1 mi) of the project area; it is the Avery Thomas House. Finally, 26 Connecticut State Register of Historic Places properties also were identified within 1.6 km (1 mi) of the Project area. They are presented in tabular form and briefly summarized below (Table 1 and Figure 9).

Site 45-18

Site 45-18, which is also known as the Beaver Dam Brook I Site, is located on public prison grounds, 1,219 meters (4,000 feet) to the north of Route 156 in East Lyme, Connecticut (Figure 8). The site was tested in 1987 by Charles Blanchard of the University of Connecticut who described it as unknown prehistoric period site. Recovered artifacts from the Beaver Dam Brook I site included a single flint point, 1 quartzite biface and 3 quartzite flakes. Site 45-18 has not been assessed applying the qualities of significance defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It will not be impacted by the proposed construction.

Site 45-19

Site 45-19, which is also known as the Beaver Dam Brook II Site, is located on public prison grounds, 1,219 meters (4,000 feet) to the north of Route 156 in East Lyme, Connecticut (Figure 8). The site was tested in 1988 by Charles Blanchard of the University of Connecticut. Mr. Blanchard described it as Late Archaic period site. Recovered artifacts from the Beaver Dam Brook II site included 1 quartz Squibnocket Triangle, 1 quartz biface, 1 quartz flake, 4 flint flakes, 1 flint biface, and a possible "fire pit." Site 45-19 has not been assessed applying the qualities of significance defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It will not be impacted by the proposed construction.

Thomas Avery House

The Thomas Avery House, also referred to as the Smith-Harris House, is a Greek Revival style residence located at 33 Society Road in East Lyme, New London County, Connecticut (Figure 9). The house was listed on the National Register of Historic Places (NRHP) in August of 1979 and currently serves as a

historical house museum. The structure is significant under Criterion C as an important example of its well preserved architectural style. The NRHP nomination form describes the house as having “the temple form, clean, crisp lines, and bold mouldings which characterize the Greek Revival style.” It is likely that the house was built in 1845 or 1846 as a wedding gift for Thomas Avery and his wife. The Avery family were well established farmers in the area beginning in 1751 and the house was in the family’s possession until 1877 when William H. Smith bought it. The house then stayed in the Smith family until 1955 until it was sold to the Town of East Lyme. The house was slated for demolition, but local citizens petitioned to save and restore it. After restoration, it was opened in July of 1976 as a historical house museum. The house is located approximately 1.6 km (1 mi) to the north of the current development area. It will not be impacted by the Roxbury Road housing subdivision.

The previously inventoried Connecticut State Register Properties buildings situated within 1.6 km (1 mi) of the project area date from between the eighteenth and twentieth centuries (see Table 1 below). A total of 16 of the state registered properties are part of the former Niantic Correctional Institution and include staff residences, a chapel, agricultural buildings, and various other types of buildings. The site was originally founded in 1918 as the Connecticut State Farm and Reformatory for Women, and by 1930, the facility expanded and was renamed the Niantic Correctional Institution. It is currently named the Janet S. York Correctional Institution, which began operation in 1994. It was named after Janet S. York who was the prison’s superintendent from 1960 to 1968 and later became the deputy commissioner of women’s services for the Connecticut Department of Correction.

Of the remaining 10 inventoried properties, three represent eighteenth century Colonial style residences, one is a residence from an unknown time period, and four buildings are of an unknown style and time period. A tavern named the Widow Calkins Tavern, located at Rt. 51 at Flanders Road Junction and the Stone Church Cemetery on Society Road are also located within 1.6 km (1 mi) of the Project Area. All of the Connecticut State Registered properties are located far enough from the Project area that it is not anticipated that the proposed construction will have an adverse effect on any of these properties.

Table 1. Inventoried Connecticut State Register Properties in East Lyme, Connecticut.

| Property Name | Address | Type | Year Built | Style |
|--|----------------------------------|-----------|------------|----------|
| Sylvanus Griswold House | Society Road | Residence | 1750 | Colonial |
| 45-22 | - | - | - | - |
| Day House | - | Residence | - | - |
| Tubbs House | 54 Society Road | Residence | 1720 | Colonial |
| Stone Church Cemetery | Society Road | Cemetery | - | - |
| - | 43 Riverview Road | Residence | 1750 | Colonial |
| Widow Calkins Tavern | Rt. 51 at Flanders Road Junction | - | - | - |
| Niantic Correctional Institution Superintendent’s Residence | 199 West Main Street | Residence | - | - |
| Niantic Correctional Institution Ida Thomason Hall | 199 West Main Street | - | - | - |
| Niantic Correctional Institution Lucretia Shaw Building Garage | 199 West Main Street | - | - | - |
| - | 149 Roxbury Road | - | - | - |
| - | 160 Roxbury Road | - | 1770 | Colonial |

Table 1. Inventoried Connecticut State Register Properties in East Lyme, Connecticut, cont'd.

| Property Name | Address | Type | Year Built | Style |
|---|----------------------|-----------|------------|-------|
| Niantic Correctional Institution Faith Trumbull Building | 199 West Main Street | - | - | - |
| Niantic Correctional Institution Water Tank | 199 West Main Street | - | - | - |
| Niantic Correctional Institution Staff House | 199 West Main Street | Residence | - | - |
| Niantic Correctional Institution Staff House | 199 West Main Street | Residence | - | - |
| Niantic Correctional Institution Staff House | 199 West Main Street | Residence | - | - |
| Niantic Correctional Institution Staff House | 199 West Main Street | Residence | - | - |
| Niantic Correctional Institution Staff House | 612 Chapel Street | Residence | - | - |
| - | 206 Roxbury Road | - | - | - |
| Niantic Correctional Institution Dairy and Meat House | 199 West Main Street | - | - | - |
| Niantic Correctional Institution Chapel | 199 West Main Street | Chapel | - | - |
| Niantic Correctional Institution Corn Crib | 199 West Main Street | - | - | - |
| Niantic Correctional Institution Fenwick Hall | 199 West Main Street | - | - | - |
| | | | | |
| Niantic Correctional Institution Lucretia Shaw Building | 199 West Main Street | - | - | - |
| Niantic Correctional Institution North Building/Goss Building | 199 West Main Street | - | - | - |

Summary and Interpretations

The review of previously identified cultural resources in the vicinity of the project area indicates that the larger project region contains prehistoric and historical cultural resources related to Native American habitation and resource extraction, as well as colonial farming and later industrial activities associated with the historical development of East Lyme. None of the previously identified cultural resources sites will be impacted by the proposed housing subdivision either directly or indirectly. Their presence, however, suggests that other archaeological resources of these periods may be expected within or near the project area.

CHAPTER VI

METHODS

Introduction

This chapter describes the research design and field methodology used to complete the current Phase IB cultural resources reconnaissance survey of the project area in East Lyme, Connecticut. It also includes the location and point-of-contact for the final facility at which all artifacts, drawings, maps, photographs, field notes generated during survey will be curated is provided below.

Research Design

The current Phase IB cultural resources reconnaissance survey was designed to identify all prehistoric and historical cultural resources located within 1.6 km (1 mi) of the project area. Fieldwork for the project was comprehensive in nature; planning considered the results of each previously completed archaeological survey within the project general area, the distribution of previously recorded archaeological sites located near the proposed Facility area, and a geological assessment of the study area. The methods used to complete this investigation were designed to provide complete and thorough coverage of all portions of the study area. This undertaking entailed pedestrian survey, systematic subsurface testing, detailed mapping, and photo-documentation throughout the limits of the project area.

Field Methodology

Following the completion of all background research, the project area was subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, photo-documentation, mapping, and systematic shovel testing. The field strategy was designed such that the entire Project area was examined visually and photographed. The pedestrian survey portion of this investigation included visual reconnaissance of all areas scheduled for impacts by the proposed development project. The project area is approximately 8.61 acres in total along Roxbury Road across from the Town Transfer Station. Subsurface testing was conducted through the excavation of shovel tests in the footprints of the proposed houses, septic lines and tanks, and driveways of each of the housing lots.

During Phase IB survey, each shovel test measured 50 x 50 centimeters (19.7 x 19.7 in) in size and each was excavated until the glacially derived C-Horizon was encountered or until large buried objects (e.g., boulders) prevented further excavation. Shovel tests were placed at 30 meters (98.4 feet) intervals along survey transects spaced 30 meters (98.4 feet) apart. Each shovel test was excavated in 10 centimeters (3.9 inches) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.64 centimeters (0.25 inches) hardware cloth and examined visually for cultural material. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Finally, each shovel test was backfilled immediately upon completion of the archaeological recordation process.

Curation

Following the completion and acceptance of the Final Report of Investigations, all cultural material, drawings, maps, photographs, and field notes will be curated with: Dr. Sarah Sportman, Office of Connecticut State Archaeology, Box U-1023, University of Connecticut, Storrs, Connecticut 06269

CHAPTER VII

RESULTS OF THE INVESTIGATION & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of a Phase IB cultural resources reconnaissance survey of the proposed five lot housing subdivision in East Lyme, Connecticut (Figures 1 and 2). The Phase IB investigation was completed by Heritage in October of 2021. All fieldwork was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the CT-SHPO. The Phase IB cultural resources reconnaissance survey results are presented below.

Results of the Investigation and Management Recommendations

As discussed in Chapter I, the proposed project plans call for the construction of five single family residences with attached garages and individual underground septic lines and tanks. A 3.6 meter (12 foot) wide bituminous shared common roadway will originate at Roxbury Road and meet with Lots 3, 4, and 5. Lots 1, and 2 will have private 3 meter (10 foot) wide bituminous driveways. Underground electrical, telephone and cable lines also will be installed, as well as a 20 x 20 foot (6 x 6 meter) crushed gravel turnaround in the western portion of Lot 3 (Figure 2). At the time of survey, the project area consisted of cleared and wooded areas with low slopes that ranged in elevation from 35 meters (115 feet) NGVD to 41 meters (135 feet) NGVD.

The current Phase IB survey effort consisted of pedestrian survey, subsurface testing, and mapping of the development area. The subsurface testing regime associated with the Phase IB cultural resources reconnaissance survey resulted in the excavation of 39 of 60 (65 percent) planned shovel tests were excavated across the development area. The shovel tests measured 50 x 50 centimeters (19.7 x 19.7 inches) in size and were excavated in the footprints of the proposed houses, septic lines and tanks, and driveways of each of the housing lots. The 21 planned shovel tests that were not excavated fell within the existing gravel road and in areas that were disturbed by the current construction (Figure 10 and Photos 1 through 13).

A typical shovel test excavated with the proposed development area reach to a depth of 75 centimeters below surface (30 inches below surface) and exhibited three soil horizons in profile. The uppermost deposits was characterized as overburden soils that extended from 0 to 7 centimeters (0 to 2.8 inches) below surface and was described as a layer of very dark grayish brown (10YR 3/2) fine sand with silt. It was underlain by the B-Horizon, which was characterized as a deposit of yellowish brown (10YR 5/4) silt with fine to medium sand that reached from 7 to 65 centimeters (2.8 to 26 inches) below surface. Finally, the glacially derived C-Horizon was encountered at 65 centimeters (26 inches) below surface; it extended to an excavated depth of 75 centimeters (30 inches) below surface and was classified as a layer of light olive brown (2.5YR 5/4) fine sand.

At the time of the survey, construction work had already begun for a gravel access drive and areas for septic system preparation work. Shovel tests were not excavated in these disturbed areas. Despite the field effort, no cultural material or cultural features from either the prehistoric or historical periods were identified within project area during the Phase IB reconnaissance survey (Figure 10). Thus, it was determined that no impacts to significant cultural resources are anticipated by construction of the

proposed five lot housing subdivision. No additional examination of the Project area is recommended prior to construction.

BIBLIOGRAPHY

AdvanceCT and CTData Collaborative

- 2021 East Lyme, Connecticut, 2021 Town Profile. Electronic document, <https://s3-us-west-2.amazonaws.com/cerc-pdfs/2021/East-Lyme.pdf>, accessed October 7, 2021.

Bendremer, J.

- 1993 *Late Woodland Settlement and Subsistence in Eastern Connecticut*. Ph.D. Dissertation, Department of Anthropology, University of Connecticut, Storrs, Connecticut.

Bendremer, J. and R. Dewar

- 1993 The Advent of Maize Horticulture in New England. In *Corn and Culture in the Prehistoric New World*. Ed. by S. Johannessen and C. Hastorf. Westview Press, Boulder.

Bendremer, J., E. Kellogg and T. Largy

- 1991 A Grass-Lined Storage Pit and Early Maize Horticulture in Central Connecticut. *North American Archaeologist* 12(4):325-349.

Chendali, Olive Tubbs

- 1989 *East Lyme: Our Town and How It Grew*. Mystic Publications, Mystic, Connecticut.

Coe, Joffre Lanning

- 1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society*, Vol. 54, Part 5. Philadelphia, Pennsylvania.

Connecticut Environmental Conditions Online (CT ECO)

- 2019 *Connecticut 2019 Orthophotography*. Storrs, Connecticut: University of Connecticut, Connecticut Environmental Conditions Online. <http://www.cteco.uconn.edu/data/flight2019/index.htm>.

Connecticut, State of

- 1940 *State Register and Manual*. State of Connecticut, Hartford, Connecticut.

- 1970 *State Register and Manual*. State of Connecticut, Hartford, Connecticut.

- 2020 *State Register and Manual*. State of Connecticut, Hartford, Connecticut. https://portal.ct.gov/-/media/SOTS/RegisterManual/RM_Archive/CT2020.pdf, accessed October 6, 2021.

- 2021a Population of Connecticut Towns 1756-1820. <https://portal.ct.gov/SOTS/RegisterManual/Section-VII/Population-1756-1820>, accessed October 7, 2021.

- 2021b Population of Connecticut Towns 1830-1890. <https://portal.ct.gov/SOTS/RegisterManual/Section-VII/Population-1830---1890>, accessed October 7, 2021.

- 2021c Population of Connecticut Towns 1900-1960. <https://portal.ct.gov/SOTS/RegisterManual/Section-VII/Population-1900-1960>, accessed October 7, 2021.

- 2021d Population of Connecticut Towns 1970-2010. <https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1970-2010>, accessed October 7, 2021.
- Crofut, Florence S. Marcy
1937 *Guide to the History and the Historic Sites of Connecticut*. Yale University Press, New Haven, Connecticut.
- Curran, M.L., and D.F. Dincauze
1977 Paleo-Indians and Paleo-Lakes: New Data from the Connecticut Drainage. In *Amerinds and their Paleoenvironments in Northeastern North America*. Annals of the New York Academy of Sciences 288:333-348.
- Davis, M.
1969 Climatic changes in southern Connecticut recorded by Pollen deposition at Rogers Lake. *Ecology* 50: 409-422.
- De Forest, John W.
1852 *History of the Indians of Connecticut from the Earliest Known Period to 1850*. Reprint edition, Brighton, Michigan: Native American Book Publishers.
- Dincauze, Dena F.
1974 An Introduction to Archaeology in the Greater Boston Area. *Archaeology of Eastern North America* 2(1):39-67.

1976 *The Neville Site: 8000 Years at Amoskeag*. Peabody Museum Monograph No. 4. Cambridge, Massachusetts.
- Dowhan, J.J. and R.J. Craig
1976 *Rare and endangered species of Connecticut and Their Habitats*. State Geological Natural History Survey of Connecticut Department of Environmental Protection, Report of Investigations No. 6.
- East Lyme, Town of
2020 Town of East Lyme Plan of Conservation and Development. https://eltownhall.com/wp-content/uploads/2020/12/FINAL-DRAFT_-ELPOCD2020_11-10-2020.pdf, accessed October 7, 2021.
- East Lyme Historical Society
2021 About East Lyme. https://eastlymehistoricalsociety.org/index_files/Page367.htm, accessed October 6, 2021.
- Fairchild Aerial Surveys
1934 *Connecticut Statewide Aerial Photograph Series*. Hartford, Connecticut: Connecticut State Archives.
- Feder, Kenneth
1984 *Pots, Plants, and People: The Late Woodland Period of Connecticut*. Bulletin of the Archaeological Society of Connecticut 47:99-112.

- Fitting, J.E.
1968 *The Spring Creek Site*. In *Contributions to Michigan Archaeology*, pp. 1-78. Anthropological Papers No. 32. Museum of Anthropology, University of Michigan, Ann Arbor.
- Funk, R.E.
1976 *Recent Contributions to Hudson Valley Prehistory*. New York State Museum Memoir 22. Albany.
- George, D.
1997 A Long Row to Hoe: The Cultivation of Archaeobotany in Southern New England. *Archaeology of Eastern North America* 25:175 - 190.
- George, D., and C. Tryon
1996 *Lithic and Raw Material Procurement and Use at the Late Woodland Period Cooper Site, Lyme, Connecticut*. Paper presented at the joint meeting of the Archaeological Society of Connecticut and the Massachusetts Archaeological Society, Storrs Connecticut.
- George, D.R., and R. Dewar
1999 Prehistoric Chenopodium in Connecticut: Wild, Weedy, Cultivated, or Domesticated? *Current Northeast Paleoethnobotany*, edited by J. Hart, New York State Museum, Albany, New York.
- Gerrard, A.J.
1981 *Soils and Landforms, An Integration of Geomorphology and Pedology*. George Allen & Unwin: London.
- Gramly, R. Michael, and Robert E. Funk
1990 What is Known and Not Known About the Human Occupation of the Northeastern United States Until 10,000 B. P. *Archaeology of Eastern North America* 18: 5-32.
- Griffin, J.B.
1967 Eastern North America Archaeology: A Summary. *Science* 156(3772):175-191.
- Hurd, D. Hamilton (compiler)
1882 *History of New London County, Connecticut, With Biographical Sketches of Many of Its Pioneers and Prominent Men*. J.W. Lewis & Co., Philadelphia.
- Jones, B.
1997 The Late Paleo-Indian Hidden Creek Site in Southeastern Connecticut. *Archaeology of Eastern North America* 25:45-80.
- Lavin, L.
1980 Analysis of Ceramic Vessels from the Ben Hollister Site, Glastonbury, Connecticut. *Bulletin of the Archaeological Society of Connecticut* 43:3-46.

1984 Connecticut Prehistory: A Synthesis of Current Archaeological Investigations. *Archaeological Society of Connecticut Bulletin* 47:5-40.

- 1986 *Pottery Classification and Cultural Models in Southern New England Prehistory*. *North American Archaeologist* 7(1):1-12.
- 1987 The Windsor Ceramic Tradition in Southern New England. *North American Archaeologist* 8(1):23-40.
- 1988a Coastal Adaptations in Southern New England and Southern New York. *Archaeology of Eastern North America*, Vol.16:101-120.
- 1988b The Morgan Site, Rocky Hill, Connecticut: A Late Woodland Farming Community in the Connecticut River Valley. *Bulletin of the Archaeological Society of Connecticut* 51:7-20.
- 2013 *Connecticut's Indigenous Peoples: What Archaeology, History, and Oral Traditions Teach Us About Their Communities and Cultures*. Yale University Press, New Haven, Connecticut.
- Lizee, J.
- 1994a *Prehistoric Ceramic Sequences and Patterning in southern New England: The Windsor Tradition*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Connecticut, Storrs.
- 1994b *Cross-Mending Northeastern Ceramic Typologies*. Paper presented at the 1994 Annual Meeting of the Northeastern Anthropological Association, Geneseo, New York.
- McBride, K.
- 1978 Archaic Subsistence in the Lower Connecticut River Valley: Evidence from Woodchuck Knoll. *Man in the Northeast* 15 & 16:124-131.
- 1983 *Prehistory of the Lower Connecticut River Valley*. Ph.D. Dissertation, Department of Anthropology, University of Connecticut, Storrs, Connecticut.
- Moeller, R.
- 1980 *6-LF-21: A Paleo-Indian Site in Western Connecticut*. American Indian Archaeological Institute, Occasional Papers No. 2.
- Pagoulatos, P.
- 1988 Terminal Archaic Settlement and Subsistence in the Connecticut River Valley. *Man in the Northeast* 35:71-93.
- Pease, John C. and John M. Niles
- 1819 *A Gazetteer of the States of Connecticut and Rhode-Island*. William S. Marsh, Hartford, Connecticut.
- Pfeiffer, J.
- 1984 The Late and Terminal Archaic Periods in Connecticut Prehistory. *Bulletin of the Bulletin of the Archaeological Society of Connecticut* 47:73-88.
- 1986 Dill Farm Locus I: Early and Middle Archaic Components in Southern Connecticut. *Bulletin of the Archaeological Society of Connecticut* 49:19-36.

- 1990 The Late and Terminal Archaic Periods in Connecticut Prehistory: A Model of Continuity. In *Experiments and Observations on the Archaic of the Middle Atlantic Region*. R. Moeller, ed.
- Poirier, D.
1987 *Environmental Review Primer for Connecticut's Archaeological Resources*. Connecticut Historical Commission, State Historic Preservation Office, Hartford, Connecticut.
- Pope, G.
1952 Excavation at the Charles Tyler Site. *Bulletin of the Archaeological Society of Connecticut* 26:3-29.
1953 The Pottery Types of Connecticut. *Bulletin of the Archaeological Society of New Haven* 27:3-10.
- Ritchie, W.A.
1969a *The Archaeology of New York State*. Garden City: Natural History Press.
1969b *The Archaeology of Martha's Vineyard: A Framework for the Prehistory of Southern New England; A study in Coastal Ecology and Adaptation*. Garden City: Natural History Press
1971 *A Typology and Nomenclature for New York State Projectile Points*. New York State Museum Bulletin Number 384, State Education Department. University of the State of New York, Albany, New York.
- Ritchie, W.A., and R.E. Funk
1973 *Aboriginal Settlement Patterns in the Northeast*. New York State Museum Memoir 20. The State Education Department, Albany.
- Rouse, I.
1947 Ceramic Traditions and sequences in Connecticut. *Bulletin of the Archaeological Society of Connecticut* 21:10-25.
- Salwen, B., and A. Ottesen
1972 Radiocarbon Dates for a Windsor Occupation at the Shantok Cove Site. *Man in the Northeast* 3:8-19.
- Smith, C.
1947 An Outline of the Archaeology of Coastal New York. *Bulletin of the Archaeological Society of Connecticut* 21:2-9.
- Snow, D.
1980 *The Archaeology of New England*. Academic Press, New York.
- Turner, Gregg M., and Melancthon W. Jacobus
1989 *Connecticut Railroads: An Illustrated History*. Hartford, Connecticut: Connecticut Historical Society.

United States Census Bureau

1860 Seventh Census of the United States. HeritageQuest Online. ProQuest LLC, Provo, Utah.

United States Geological Survey (USGS)

1951 *Aerial Photograph Series for Connecticut*. Reston, Virginia: USGS.

Witthoft, J.

1949 An Outline of Pennsylvania Indian History. *Pennsylvania History* 16(3):3-15.

1953 Broad Spearpoints and the Transitional Period Cultures. *Pennsylvania Archaeologist*, 23(1):4-31.

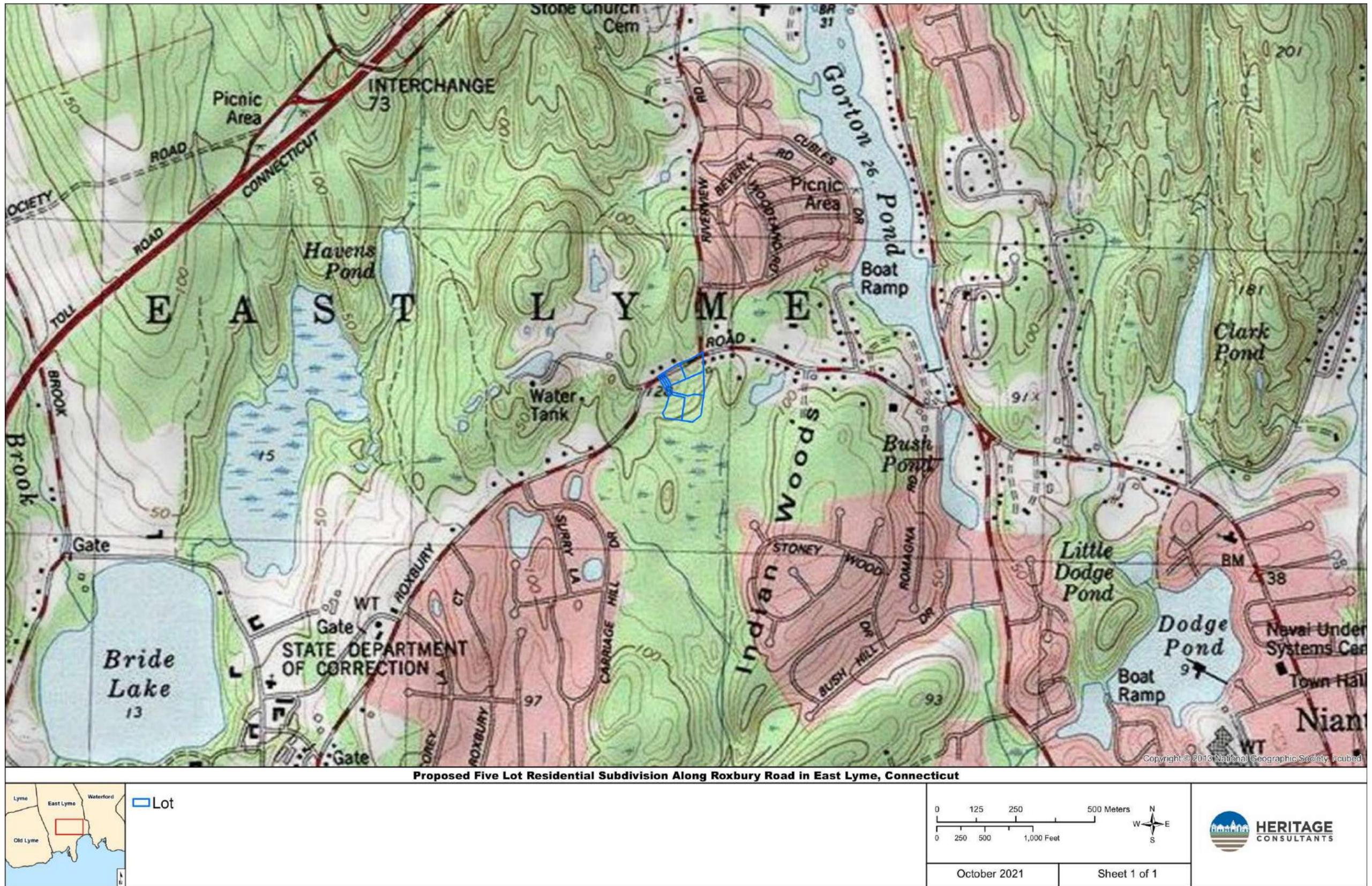


Figure 1. Excerpt from a 1996 USGS 7.5' series topographic map showing the location of the proposed project area.

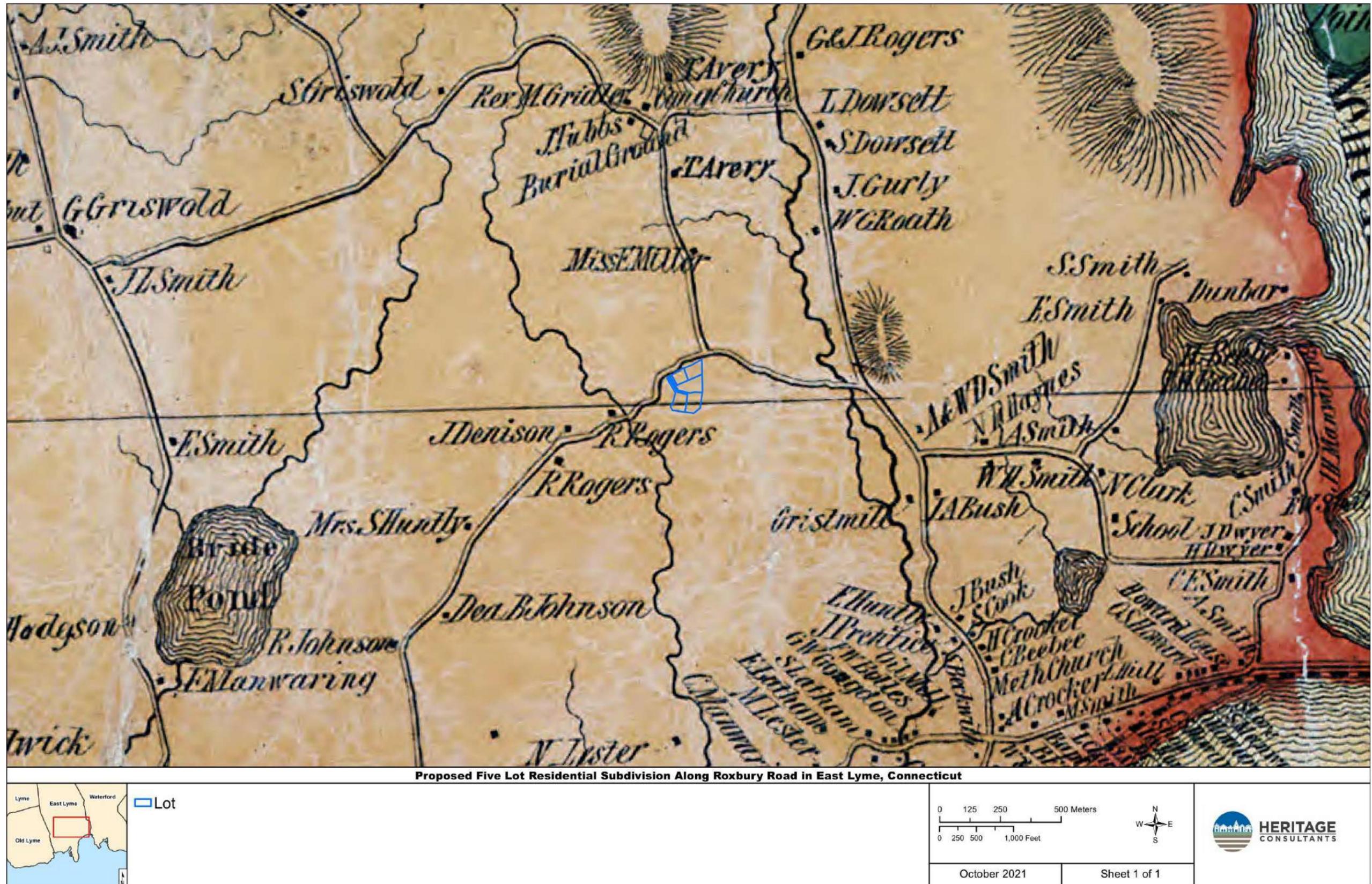
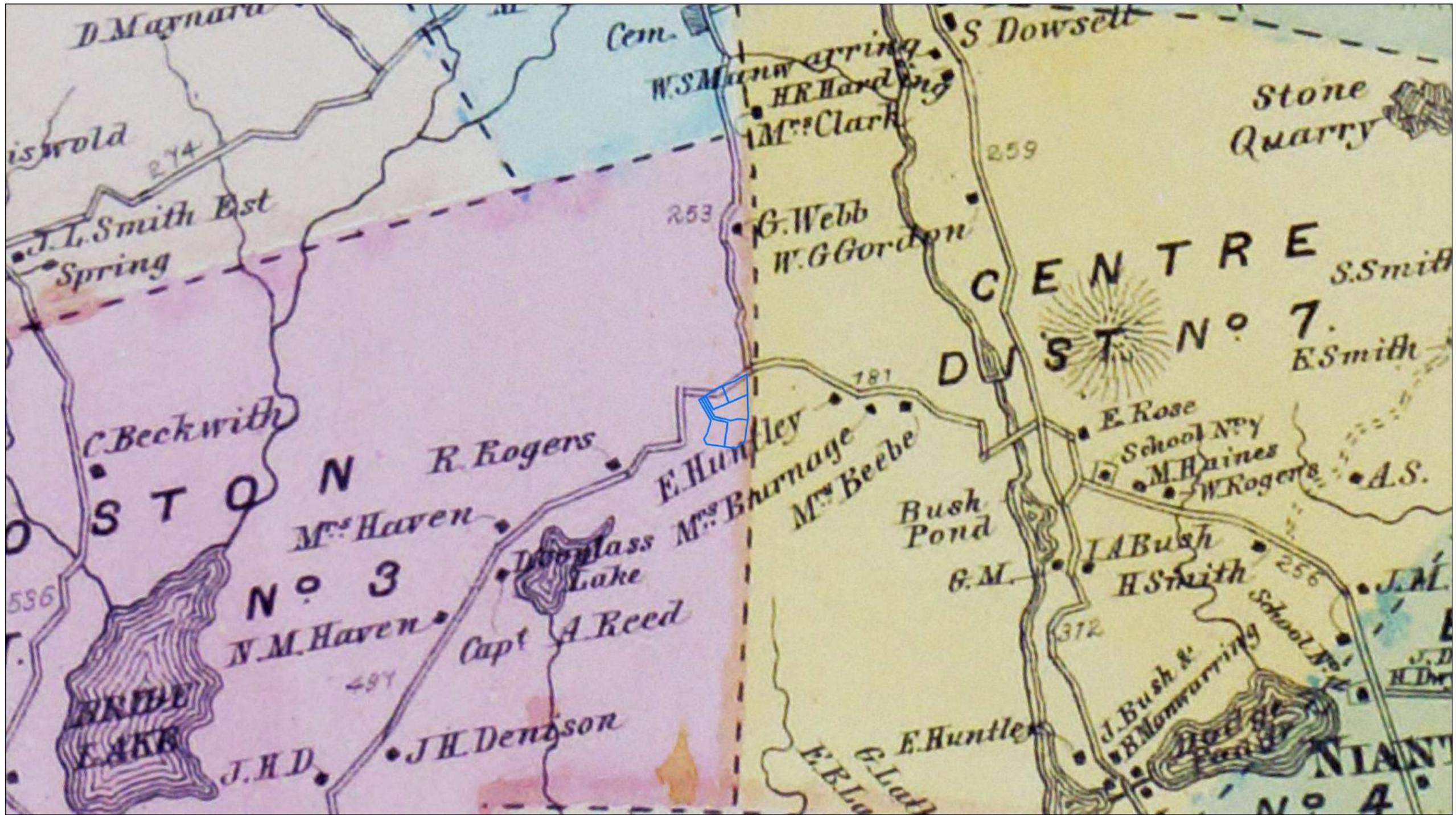


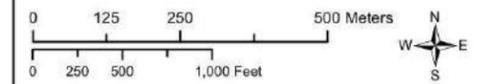
Figure 3. Excerpt from an 1854 map showing the location of the proposed project area.



Proposed Five Lot Residential Subdivision Along Roxbury Road in East Lyme, Connecticut



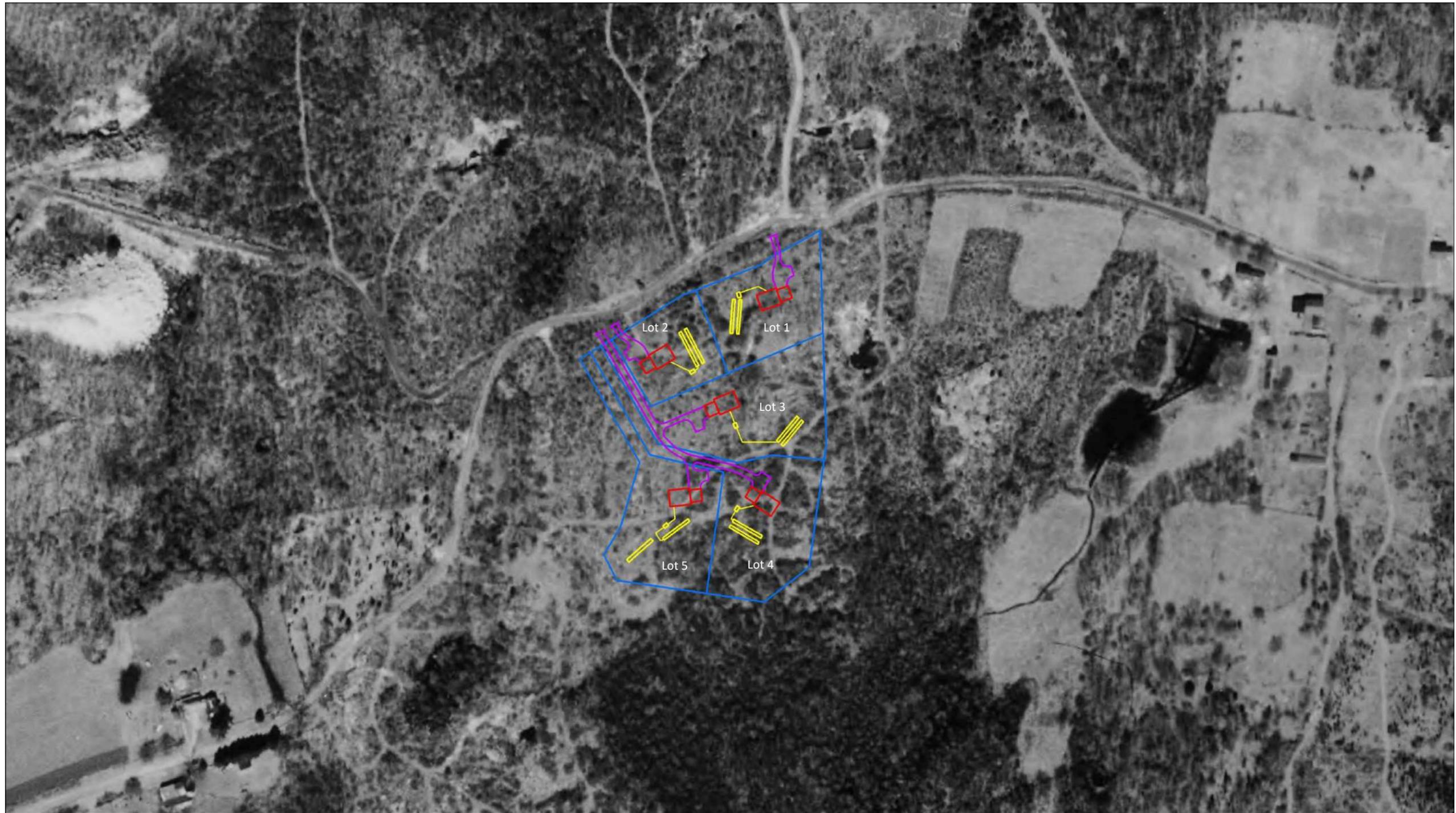
Lot



October 2021

Sheet 1 of 1

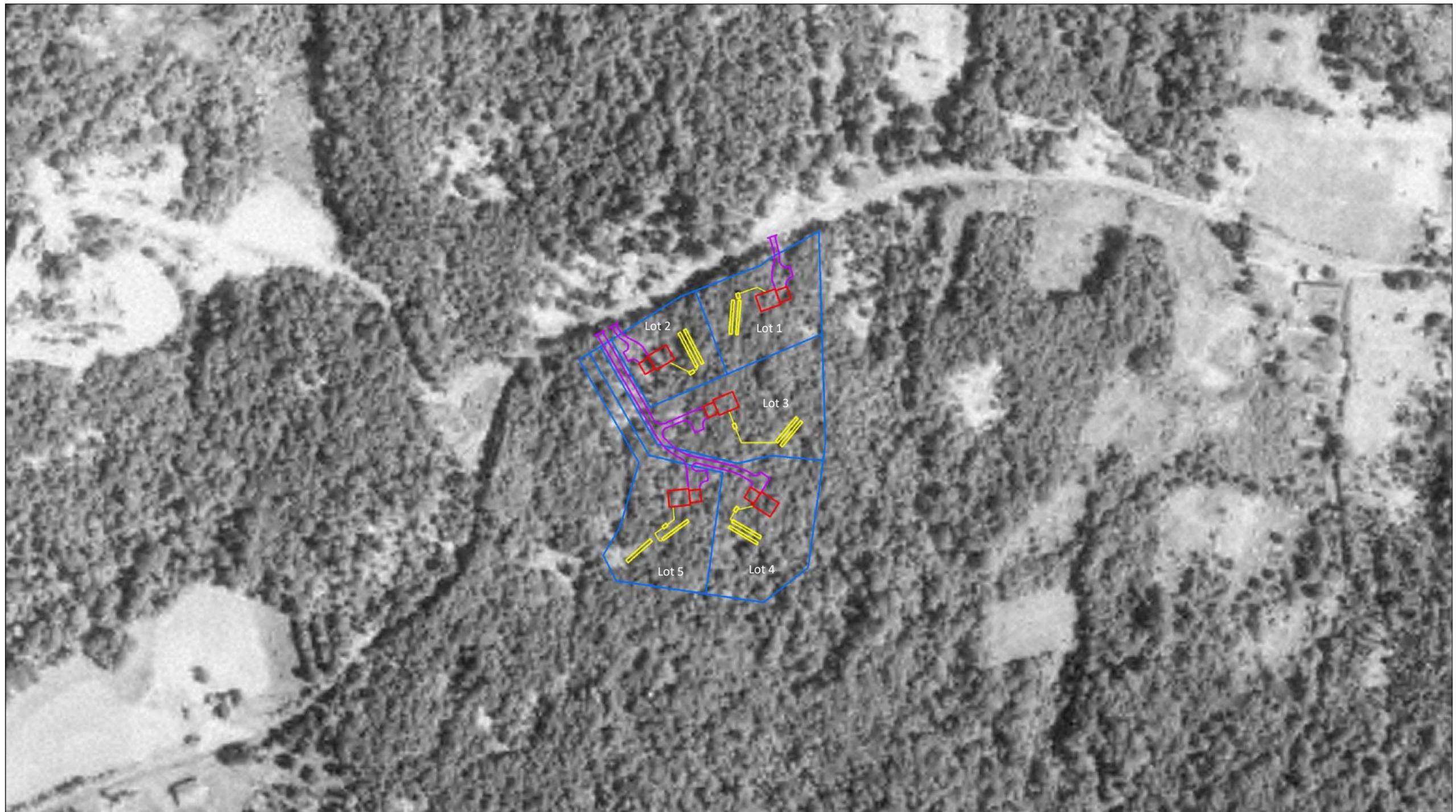
Figure 4. Excerpt from an 1868 map showing the location of the proposed project area.



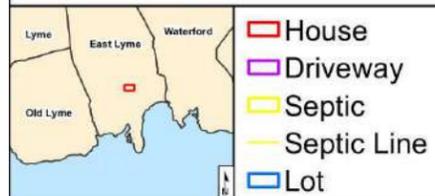
Proposed Five Lot Residential Subdivision Along Roxbury Road in East Lyme, Connecticut

| | | | |
|--------------|--|--------------|--|
| | <ul style="list-style-type: none"> ▭ House — Driveway ▭ Septic — Septic Line ▭ Lot | | |
| October 2021 | | Sheet 1 of 1 | |

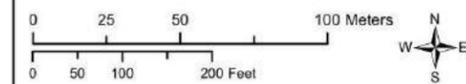
Figure 5. Excerpt from a 1934 aerial image showing the location of the proposed project area.



Proposed Five Lot Residential Subdivision Along Roxbury Road in East Lyme, Connecticut



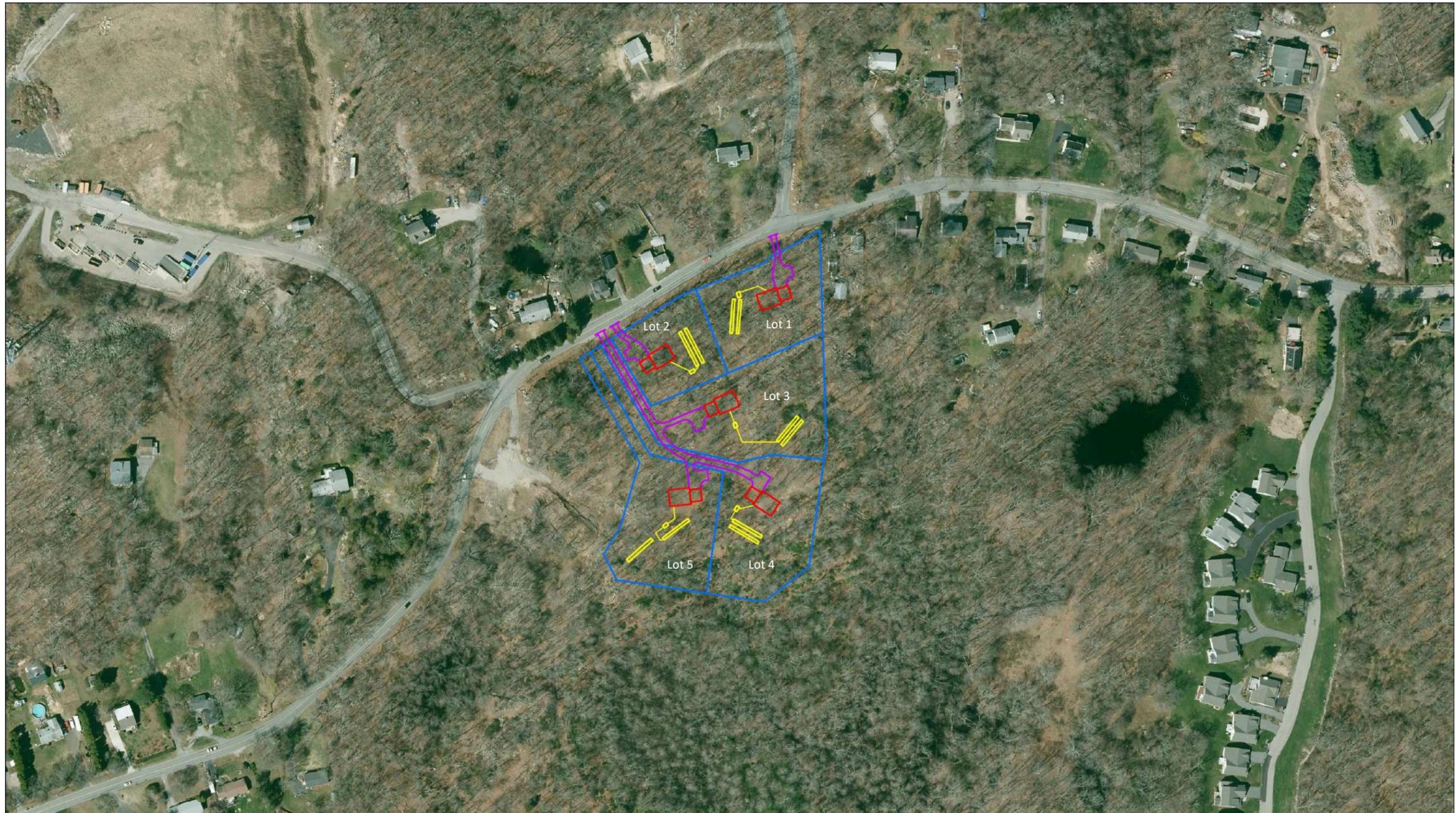
- House
- Driveway
- Septic
- Septic Line
- Lot



October 2021

Sheet 1 of 1

Figure 6. Excerpt from a 1951 aerial image showing the location of the proposed project area.



Proposed Five Lot Residential Subdivision Along Roxbury Road in East Lyme, Connecticut

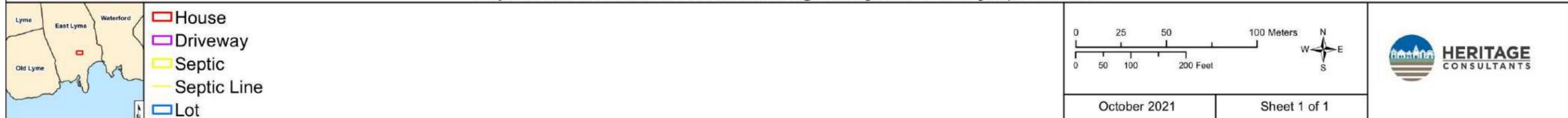


Figure 7. Excerpt from a 2019 aerial image showing the location of the proposed project area.

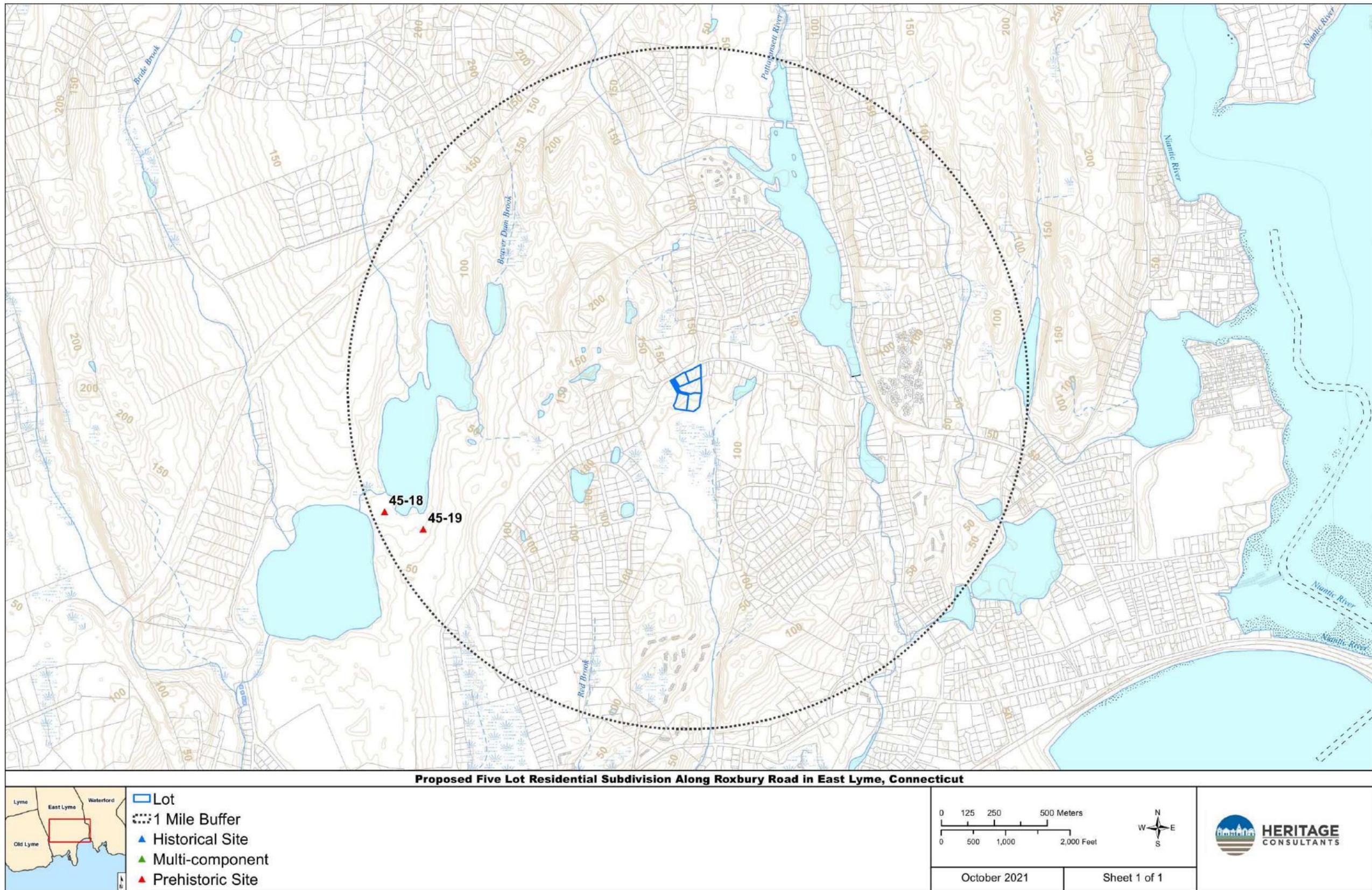


Figure 8. Digital map showing the location of archaeological sites within 1.6 km (1 mi) of the project area.

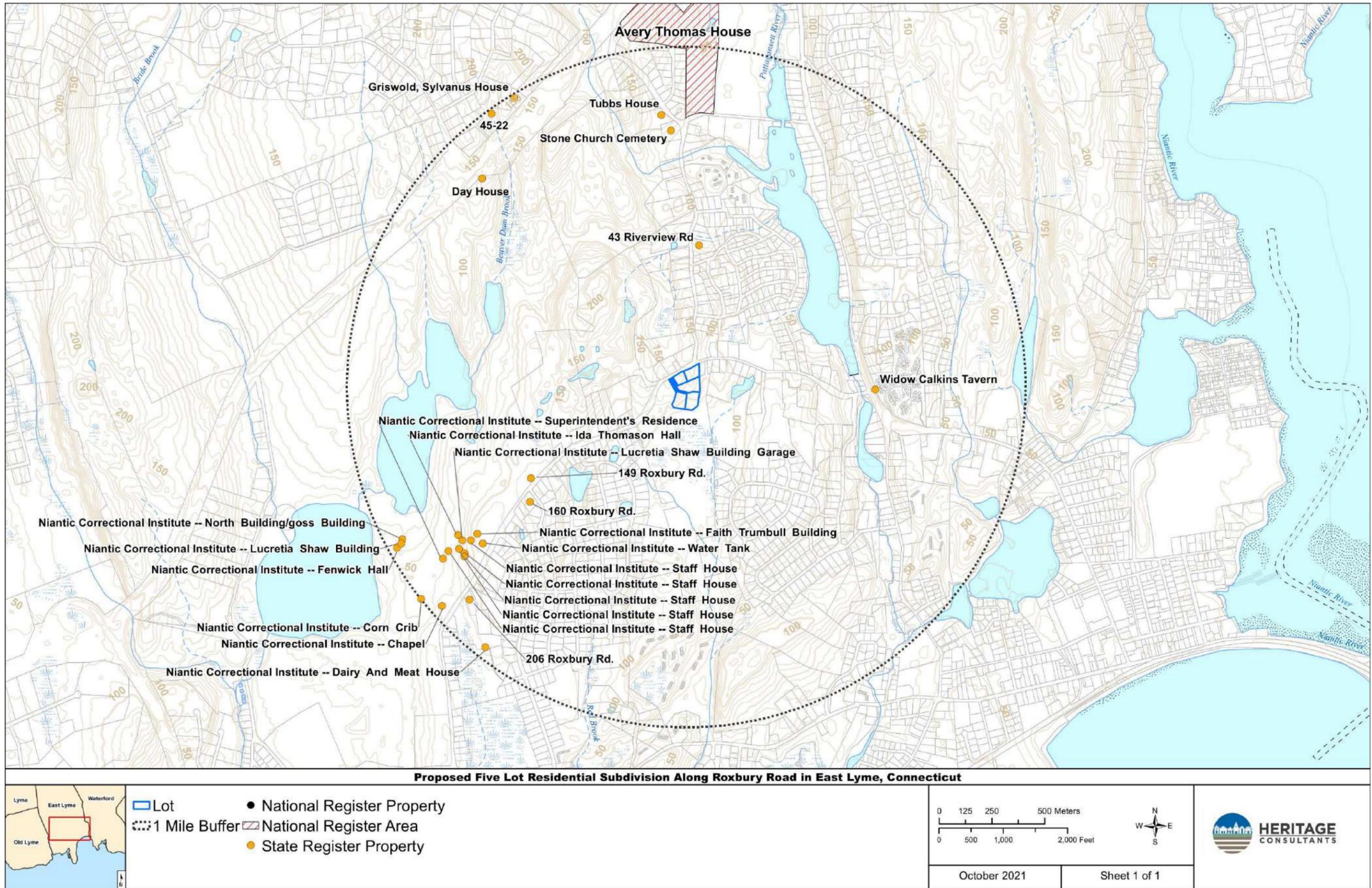


Figure 9. Digital map showing the location of National/State Register of Historic Places properties located within 1.6 km (1 mi) of the project area.

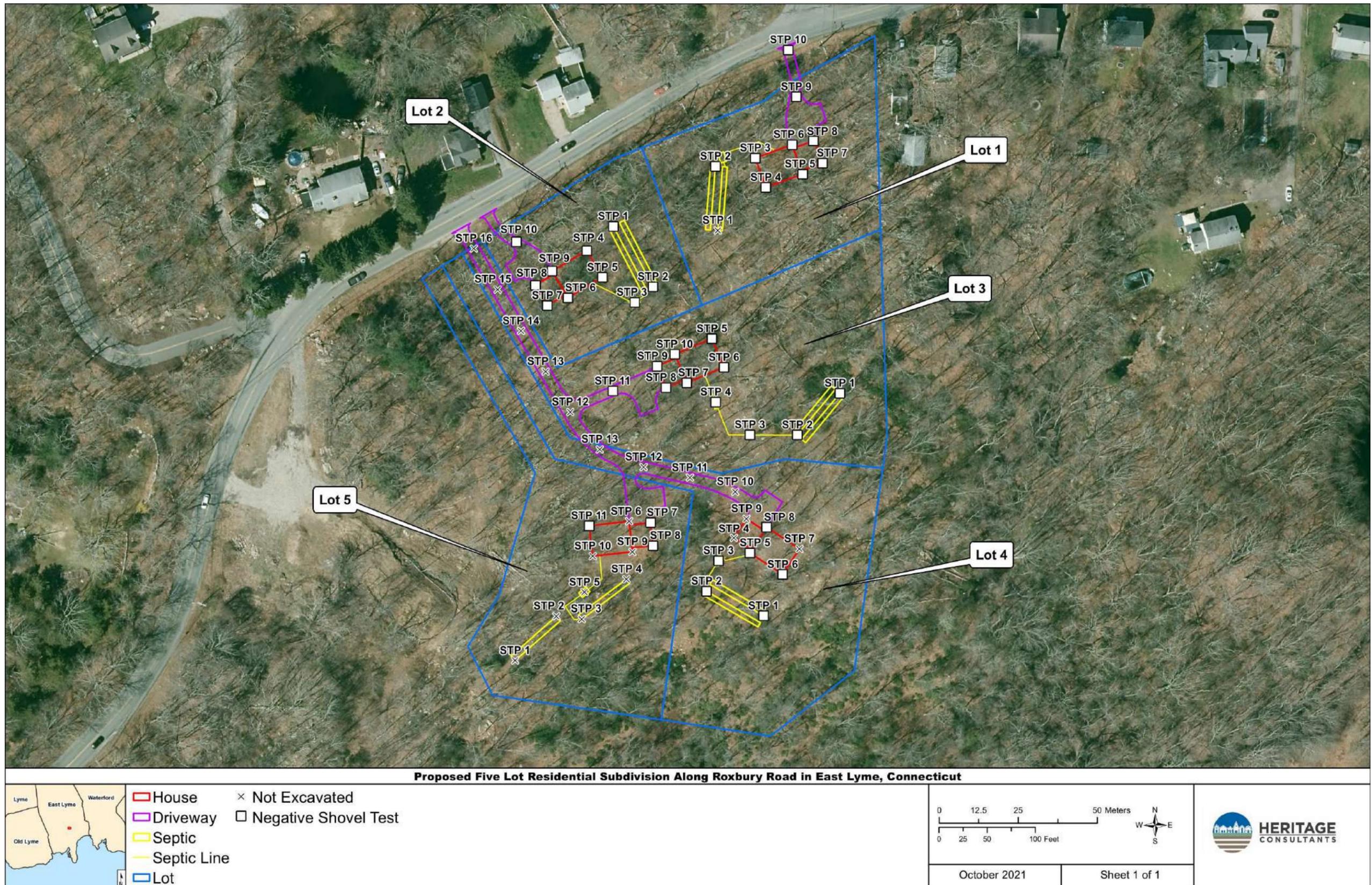


Figure 10. Plan view map of project area showing locations of shovel tests excavated in the proposed five lot residential subdivision along Roxbury Road in East Lyme, Connecticut.



Photo 1. Overview photo in Lot 1. Photo taken facing west from the southeast corner of proposed house and garage footprint.



Photo 2. Overview photo in Lot 1. Photo taken facing north from the southern end of proposed septic tank.



Photo 3. Overview photo in Lot 2. Photo taken facing south from the northern end of proposed septic tank.



Photo 4. Overview photo in Lot 2. Photo taken facing east from the northern end of proposed driveway.



Photo 5. Overview photo in Lot 3. Photo taken facing south from the northeastern end of proposed driveway.



Photo 6. Overview photo in Lot 3. Photo taken facing south from the northeastern end of proposed driveway.



Photo 7. Overview photo in Lot 3. Photo taken facing west from the northern end of proposed septic tank.



Photo 8. Overview photo in Lot 4. Photo taken facing northwest from the southern end of proposed driveway.



Photo 9. Overview photo in Lot 4. Photo taken facing north from the southeast corner of proposed house footprint.



Photo 10. Overview photo in Lot 5. Photo taken facing south from the northeast corner of proposed house footprint.



Photo 11. Overview photo in Lot 5. Photo taken facing northeast from the northeast corner of proposed septic tank.



Photo 12. Overview photo from northern end of proposed common driveway. Photo taken facing south towards Lots 4 and 5.



Photo 13. Overview photo from center portion of proposed common driveway and north of Lot 5. Photo taken facing southeast.